



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,986	06/23/2003	Billy Joe Ratliff JR.	DN2003096	9094

27280 7590 08/18/2005

THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
1144 EAST MARKET STREET
AKRON, OH 44316-0001

EXAMINER

MAKI, STEVEN D

ART UNIT PAPER NUMBER

1733

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,986

Applicant(s)

RATLIFF, BILLY JOE

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005 and 13 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-12 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1733

1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) **Claims 1-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhr et al (US 5234042) in view of Japan 513 (JP 2002-240513) and at least one of Himuro 384 (US 5885384) and Europe 971 (EP 1075971).**

Kuhr et al discloses a pneumatic tire having a central rib between a pair of circumferential grooves, inclined grooves (steeply slanted grooves) and profiled elements (blocks) wherein effective drainage is obtained. Each profiled element (block) extends from a central region to shoulders as claimed since the profiled element extends from one of the circumferential grooves to a location beyond the edge of the tire width support A. See figures 1 and 3. In figure 1, the rib is zigzag. In figure 3, the rib is straight.

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide Kuhr et al's central rib such that the rib has an "almost straight" configuration at the tread depth defined at the base of the grooves in view of Kuhr et al' teaching to define the central rib between a pair of linear circumferential grooves or a pair of zigzag circumferential grooves. Although "almost straight" excludes "straight", one of ordinary skill in the art would readily understand from Kuhr et al's disclosure (figures 1,3) that some variance from straight for the rib is permitted, contemplated and suggested.

With respect to the rib chamfers, it would have been obvious to one ordinary skill in the art to provide the "almost straight" central rib of Kuhr et al's tire for effective drainage with chamfers extending from laterally oriented edges as claimed since Japan 513 suggests forming recessed parts 28 (chamfers) for draining water in a central rib. It is noted that figure 3 of Kuhr et al appears to illustrate small triangular recessed parts extending along each edge of the straight rib. It is also noted that Japan 513 suggests offsetting chamfers 28 on one side of the rib from chamfers 28 on the other side of the rib.

With respect to the block chamfers, it would have been obvious to provide the axially innermost points of the blocks with chamfers extending into the junction of the steeply slant grooves as claimed since it is well known / conventional in the tire tread art to chamfer an axially innermost corner of a block between steeply slanted grooves to improve drainage and rigidity of the block as evidenced by at least one of Himuro 384 and Europe 971. As to the block chamfers and rib chamfers being "axially adjacent", the applied prior fairly suggests this arrangement since (1) Japan 513 suggests locating the rib chamfers 28 such that they are "axially adjacent" axially innermost corners of blocks, which are *adjacent* the rib and (2) Himuro / Europe 971 suggest(s) chamfering axially innermost corners of blocks, which are *adjacent* a rib.

As to claim 2, the Kuhr et al's profiled elements (blocks) in figures 1 and 3 are not divided by circumferential grooves and thereby are continuous from the central region to the shoulders as claimed.

As to claims 3 and 4, Japan 513's rib chamfers 28 decrease in width and height.

As to claim 12, the width and height of the rib chamfer 28 suggested by Japan 513 *decreases* in height in the direction opposite the tire rotation direction (opposite direction A) whereas the width and height of the block chamfer suggested by Himuro 384 / Europe 971 *increases* in the direction opposite the rotating direction (e.g. opposite direction D).

3) Claims 6-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhr et al in view of Japan 513 and at least one of Himuro 384 and Europe 971 as applied above and further in view of Europe 685 (EP 688685).

As to claims 6-7, it would have been obvious to provide Kuhr et al's slant grooves with the claimed maximum width in the central 15% of each side region since, Europe 685, directed to improvement of wet performance of a tire having a central rib and slant grooves, suggests sizing such grooves such that the slant groove is wider in the middle region.

As to claims 10-11, it would have been obvious to provide Kuhr et al's tread, which has the rib chamfers therein, such that the NTG decreases from the tread edge toward the tread center (or in other words, the negative ratio increases from the tread edge toward the tread center, since Europe 685 suggests increasing negative ratio from the side end of the tread toward the central region so as to obtain improvement of drainage property and ensuring rigidity for steering stability. As to maximum NTG at the EP, note the rib at the EP.

Art Unit: 1733

4) Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhr et al in view of Japan 513 and at least one of Himuro 384 and Europe 971 as applied above and further in view of Japan 919 (Japan 2002-103919).

As to claims 8-9, it would have been obvious to use sipes in Kuhr et al's tread such that the claimed sipe density is 2-8 sipes per inch (0.78-3.15 sipes / cm) since Japan 919, also directed to improving drainage of a tire tread having a central rib and slant grooves, suggests forming sipes at a pitch (spacing) of for example 5.8 mm, in the central rib so that the tire tread has excellent braking effect on ice / snow in addition to having improved drainage. The limitation of the sipes extending into the chamfers would have been obvious in view of Japan '919's teaching to use sipes in the rib such that the sipes open to the side surfaces of the rib.

Allowable Subject Matter

5) Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, including Europe 971, fails to suggest further modifying Kuhr et al such that the rib chamfer has an axially outermost edge gradually increasing in height and an axially innermost edge gradually decreasing in height.

Remarks

6) Applicant's arguments with respect to claims 1-4 and 6-12 have been considered but are moot in view of the new ground(s) of rejection.

With respect to "almost straight" (added to claim 1 by the amendment filed

Art Unit: 1733

5-13-05 and supported by the original disclosure at paragraph 19), note the new ground of rejection using Kuhr et al.

7) No claim is allowed.

8) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

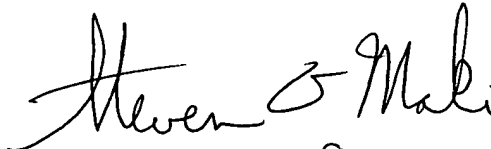
9) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
August 15, 2005


STEVEN D. MAKI 8-15-05
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733